

R E M A R K S

The last Official Action (Paper No. 7 dated July 1, 2002) has been carefully considered.

The amendments to certain claims are intended to even more accurately point out the important differences between the teaching of the newly cited primary reference (US patent No. 6,022,353 to Fletcher et al. and hereinafter referred to as Fletcher) on the one hand, and the present invention on the other hand. Thus, applicants' claims now even more unequivocally point out that the claimed tool or tool kit is not intended for the cutting of bones having round or oval cross-sectional outlines, i.e., that applicants' tool is not intended for the severing of or for cutting into "one of the hard parts of the skeleton of a vertebrate" (please refer to the definition of "bone" in Webster's Third New International Dictionary).

As stated in numerous passages of applicants' specification, applicants have devised a novel and improved tool for use with a manually operable material removing apparatus in order to remove material from a workpiece. Reference may be had, for example, to lines 9, 13 and 19 on page 5; to lines 5 and 10 on page 6; to lines 16-21 on page 7; to lines 18-24 on page 17; and to

passage in the paragraph bridging the pages 20-21 of applicants' specification. Webster's Dictionary defines a workpiece as "a piece of work in the process of manufacture", i.e., a part having nothing in common with "one of the hard parts of the skeleton of a vertebrate".

The basic differences between the bone cutting tools and the tools for severing workpieces were recognized by the US Patent and Trademark Office many years ago. Please note that, during the pendency of the application Serial No. 08/153,871 which has matured into the Fletcher patent, the Examiner (Mr. Michael Brown) required a

"Restriction to one of the following inventions under 35 U.S.C. § 121:

"I. Claims 1-20, are drawn to a method for surgically cutting of bone, classified in Class 128, subclass 898.

"II. Claims 21-31, are drawn to an oscillatory surgical cutting saw, classified in Class 606, subclass 79."

The attorneys for Fletcher elected the invention II (emphasis by the undersigned attorney). Copies of the Action dated March 21, 1994 and of the Amendment dated May 2, 1994 are enclosed for the Examiner's convenience.

In the Notice of Allowance dated March 22, 2002, the Examiner (Ms. Shantese L. McDonald) in charge of the present application stated that the present invention belongs to the US Class 451.

The reasons why one familiar with the fields to which the patented invention of Fletcher and the present invention pertain, and seeking to improve the tools of the type called for in the claims of the present application would not seek ideas in the field of cutting bones (i.e., in the patent to Fletcher) will be explained with reference to the enclosed prints identified as Figs. A and B.

Fig. A shows a tool of the type shown in Figs. 1 to 5B of Fletcher in the process of severing a round or oval bone. As a rule, such tools are utilized for cutting into or for severing across a round or oval bone because a plate-like bone is not contemplated for the reception of an artificial joint or the like, i.e., of a contraption which is often implanted into the severed end of a round or oval bone. On the other hand, a pronouncedly arcuate cutting edge of a bone severing tool of the type shown in Fig. 6A or 6B of the patent to Fletcher is not suitable for the severing of bones (please refer to column 6, lines 34-41 of Fletcher). Thus, if the cutting edge of a bone severing tool is imparted a pronounced arcuate shape (e.g., an arcuate shape such that its center of curvature is located at a point (O in Fig. 6A of Fletcher) on the axis about which the tool oscillates, a surgeon seeking to put the

tool to use would encounter pronounced difficulties in placing the arcuate cutting edge against a selected portion of a round or oval bone, i.e., the arcuate cutting edge would tend to slip relative to the selected portion of the external surface of the bone. Thus, the utilization of a tool with a substantially straight cutting edge of the type shown in Figs. 1 to 5B of Fletcher is not an improvement over the existing bone cutting tools but is the only tool which can make predictable cuts in a round or oval bone.

The only tool which can be utilized to sever bones as well as other materials is disclosed in the cited US patent No. 5,697,835 to Nitz et al. Please refer to columns 1 and 2 of the specification in this patent. However, the Nitz et al. reference fails to disclose an elongated member with a fulcrum for attachment to an oscillating shaft at one end and with a straight cutting edge normal to the axis of the fulcrum at the other end.

Applicants now propose to employ a tool of the type called for in the claims which are presently active in the instant application in order to improve tools of the type disclosed by Fletcher, by Nitz et al. as well as in US patent No. 3,530,577 to Franklin et al. The tool which is disclosed by Franklin et al. (this

reference was cited in Paper No. 3 dated December 21, 2001) does not have a straight or a substantially straight cutting edge, and applicants believe that this is the reason for withdrawal of Franklin et al. from further consideration in connection with the claims of the present application. As shown in the enclosed Fig. B, applicants' improved tool can cut a square or rectangular recess into a workpiece which is made of wood, rock, plastic material, metal or the like, i.e., something that the tool of Franklin et al., Nitz et al. and/or Fletcher et al. cannot do and is not intended to do. Otherwise stated, Fletcher et al. and Nitz et al. merely recognized that an oscillating tool with a straight cutting edge can be utilized for the cutting of round or oval bones. Nitz et al. further recognized that an oscillating tool with a straight cutting edge adjacent the fulcrum for the tool can be utilized for cutting into materials other than bone. However, neither of these references recognized the important advantages of a tool with a straight cutting edge remote from the fulcrum for the making of cuts of the type shown in the enclosed Fig. B. Please refer to the paragraph bridging the pages 20-21 of applicants' specification; this passage describes the utilization of applicants' improved tool in a manner as illustrated

in the appended Fig. B. The recognition that an oscillatable tool which departs from the prior art primarily in that its cutting edge is at least substantially straight, remote from the axis about which the tool oscillates and normal to such axis can do work of the type shown in Fig. B is believed to constitute an important innovation of high order which clearly merits patent protection.

The dependent claims 2 to 17 are believed to be patentable because they refer to the amended independent claim 1. Therefore, a detailed discussion of the rejections on pages 2 to 4 and in the first paragraph on page 5 of Paper No. 7 does not appear to be necessary at this time.

On page 3 of Paper No. 7, the Examiner refers to a patent identified as "Arntz et al.". This reference is not listed on the Form PT0-892 (Part of Paper No. 7) and a copy of such reference was not enclosed with the last Action. Applicants' Swiss patent attorney has discovered a US patent No. 6,058,923 (granted May 9, 2000 to Arntz et al. on an application filed August 12, 1998 and claiming the priority of a German patent application filed August 13, 1997). If the Examiner intended to rely on this US patent, applicants respectfully submit that it is not a valid reference against the claims

which are active in the present application because applicants' first priority application was filed on May 28, 1997.

The Examiner relied upon the Arntz et al. reference in the rejection of applicants' claims 4 and 5 which recite that the material removing elements of claim 2 comprise industrial diamonds and/or corundum. Enclosed is a copy of applicants' Swiss patent application Serial No. 01254/97 filed May 28, 1997. The sentence in lines 4-8 on page 4 of this Swiss patent application contains the following disclosure:

"The cutting tool 11 comprises a cutting edge 13 which, depending upon its intended use, is provided with teeth, preferably cross ground teeth, with industrial diamonds or, for work in metal, with corundum or other abrasive material" (translation furnished by the undersigned).

Therefore, applicants respectfully request that if, in the rejection of their claims 4 and 5, the Examiner intended to rely upon US patent No. 6,058,923 to Arntz et al., this reference be withdrawn from further consideration.

The undersigned attorney made repeated calls to the Patent Office and left several messages requesting that the Examiner answer the calls in order to clarify the situation concerning the patent to Arntz et al., but no answers were received to this date.

US patent No. 5,697,835 to Nitz et al. discloses a stepped circular blade 81 having two concentric circular portions 82 and 84 (emphasis by the undersigned). This is believed to have nothing in common with the matter of applicants' claim 1 (which calls for an elongated tool member) and/or with the tool disclosed by the primary reference Fletcher. The amended claim 11 now calls for a step of finite length, i.e., a feature which is evidently lacking in the disclosure of Nitz et al.

The claim 14 is believed to be patentable because it refers to the parent claims 1 and 12; therefore, the US patent No. 5,306,285 to Miller et al. need not be discussed at this time.

US patent No. 6,267,594 B1 to Hugo is not a valid reference against the claims of the present application. Applicants can rely on the priorities of their Swiss patent applications filed in 1997. On the other hand, Hugo relies on the priority of his German patent application filed in 1998. Therefore, the claims 18-20 appear to be patentable irrespective of the ultimate disposition regarding the patentability of the claims 1 to 17.

The prior art made of record but not relied upon in Paper No. 7 is believed to be less relevant than the art on which the Examiner relied in the last Action.

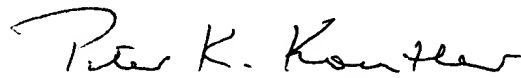
The enclosed APPENDIX contains a marked up version of the twice amended claim 1 and marked up versions of the once amended claims 11, 12, 18 and 20.

This case is believed to be in condition for allowance with the claims 1 through 20, and such disposition at a reasonably early date is earnestly solicited.

EF 184140149 US

Respectfully submitted,

Dated: Aug. 8, 2002



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Enclosures:

- (1) APPENDIX (2 pages)
- (2) Figs. A and B
- (3) Copy of Action dated 03/21/94
in USSN08/153,871 (now US
patent No. 6,022,353)
- (4) Copy of Amendment dated 5/2/94
in USSN08/153,871
- (5) Return post card
- (6) Print of US patent No.
6,058,923 to Arntz et al.
- (7) Copy of Swiss patent application
Serial No. 01254/97 of May 28, 1997



APPENDIX to Amendment in re application Serial No.
09/917,998 filed July 30, 2001 by Marco STEIGER et al.
for "MATERIAL REMOVING TOOL"
Art Unit 3723
Examiner Ms. Shantese L. McDonald

The following are marked up versions of the twice amended claim 1 and of the once amended claims 11, 12, 18 and 20 as they appear in the enclosed Amendment filed in response to the Official Action of July 1, 2002:

1 1. A tool for [use] removal of material from
2 workpieces with a manually operable [material removing]
3 apparatus having a power driven output shaft arranged
4 to oscillate about a predetermined axis, comprising:
5 an elongated member having a first section
6 arranged to be mounted on said output shaft so that the
7 member extends in a direction at least substantially
8 normal to said predetermined axis, and
9 a second section remote from said first section
10 and including at least one at least substantially
11 straight cutting edge at least substantially normal to
12 said direction.

1 11. The tool of claim 10, wherein said elongated
2 member is provided with a step of finite length interme-
3 diate said first and second sections thereof, said step
4 having a predetermined height and further comprising
5 a fastener arranged to attach said first section to said
6 shaft and extending beyond said elongated member through
7 a distance at least approximating said height.

1 12. The tool of claim 1, wherein said elongated
2 member comprises means for facilitating removal of
3 material from a workpiece being cut by said cutting
4 edge.

1 18. A tool kit for [use] removal of material
2 from workpieces with a manually operable [material re-
3 moving] apparatus having a power-driven output shaft
4 arranged to oscillate about a predetermined axis, com-
5 prising a plurality of discrete tools each including
6 an elongated member having a first section arranged to
7 be non-rotatably and separably mounted on said output
8 shaft in a position in which said member extends in a
9 direction at least substantially normal to said prede-
10 termined axis, and a second section comprising at least
11 one at least substantially straight cutting edge at
12 least substantially normal to said direction upon
13 mounting of the respective first section on said output
14 shaft.

1 20. The kit of claim 18, wherein at least one
2 of said tools has means for facilitating evacuation of
3 material being removed from a workpiece by the cutting
4 edge of the at least one tool in actual use of the at
5 least one tool.